

Fremantle Fortress - Rottnest Island WW2 Coastal Defence Facilities

Engineering Heritage National Landmark

Commemoration Ceremony

Rottnest Island

Wednesday 10th November 2010



PROGRAM BOOKLET



Program

Acknowledgement of Traditional Ownership of Land

Formal welcome, recognition of distinguished guests and apologies

Mr Don Young FIEAust, Chairman of Engineering Heritage Western Australia

Introduction by Mr Young of Mr Owen Peake, HonFIEAust, CPEng, Chairman,
Engineering Heritage Australia

Engineers Australia Engineering Heritage Recognition Program

Mr Owen Peake

Fremantle Fortress – Rottnest Island WW2 Coastal Defence Facilities

Colonel Michael Page, RFD ADC, Deputy Commander, 13th Brigade Australian Army

Unveiling of plaque

Colonel Page and Mr Laurie O'Meara AM, Chairman, Rottnest Island Authority

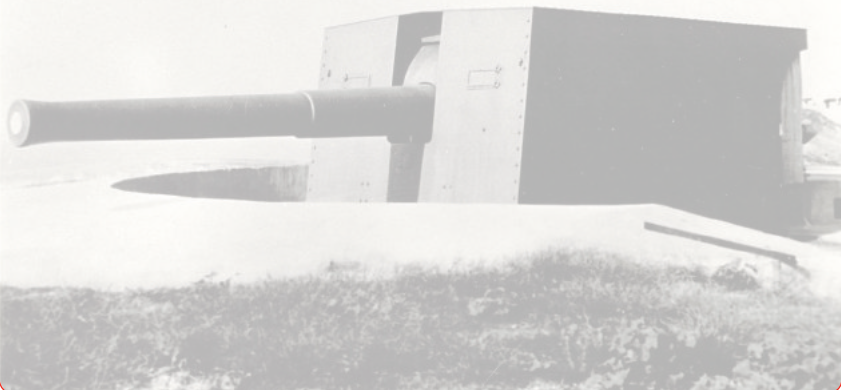
Acceptance of plaque

Mr Laurie O'Meara

Closing Remarks

Mr Owen Peake

*Lunch to follow ceremony and a special train will depart for Oliver Hill at 12.30 pm
returning in time for a 2.30 pm ferry departure.*



Engineering Heritage National Landmark

In August 2010 Engineering Heritage Australia advised Engineering Heritage WA that its nomination of Fremantle Fortress – Rottnest Island WW2 Coastal Defence Facilities met the assessment criteria set down in Engineers Australia Heritage Recognition Program Guidelines and had been awarded its highest accolade, an Engineering Heritage National Landmark. The following is a summary of the nomination document.

Fremantle Fortress and Rottnest Island

In the mid 1930s the Government of the Commonwealth of Australia commenced an upgrade of its fixed coastal defence artillery batteries to protect key Australian ports from possible enemy attack.

On the west coast priority was given to upgrading and extending the existing coastal defence system for the Port of Fremantle by establishing new facilities on Rottnest and Garden Islands and modernising the existing batteries on the mainland at Swanbourne, Leighton, North Mole, Fremantle Harbour, South Beach and Point Peron. The combined facilities were known as ‘Fremantle Fortress’.

The Port of Fremantle played a vital role in Australia’s involvement in WW2, being a major base for American, British and Dutch submarines, a troop convoy assembly point, a shipping repair facility and a bunkering port. The Fortress had a major deterrent role in the defence of Fremantle against possible seaborne enemy attack. The 9.2 inch guns installed on Rottnest and Garden Islands (2 on each island), having an effective range of over 28 km, extended the reach of the Fortress well out to sea in order to protect against potential damage to the Port delivered by ship-borne long range guns. The Rottnest Island facility is the only intact establishment remaining

in Australia of the seven 9.2 inch coastal gun batteries constructed during the late 1930s and early 1940s to defend key Australian ports. It is one of a very small number of 9.2 inch gun batteries remaining in the world.



The No. 1 (H1) 9.2 gun following final emplacement at Oliver Hill c 1938.

A complex infrastructure was installed on the island to support the operation of the gun batteries at Oliver Hill and Bickley Point, including the Kingstown Barracks, the Army Jetty, the interconnecting railway line, observation posts at Mount Herschel, Bare Hill, Cape Vlamingh, One Tree Hill and, most importantly, the three storey Combined Fortress and Battery Observation Post on Wadjemup Hill (Signal Ridge).

The Rottnest Island WW2 Defence Facilities History

The original plan for the defence of Fremantle was to place 9.2 inch guns on the mainland at Buckland Hill in Mosman Park, but it was realised that this strategy would not have prevented the long range bombardment of Fremantle Harbour by cruisers equipped with 8 inch guns. Planning then focused on Rottnest Island.

The first reconnaissance on Rottnest Island to look for suitable military sites took place in June 1934 when esteemed Western Australian World War 1 soldier and architect Lieutenant-General (Rtd) Sir J.J Talbot-Hobbs assisted the Department of Defence in its survey for

suitable gun battery locations. In August 1934 the Director of Military Operations and Intelligence from the Department of Defence in Melbourne, Colonel V.A.H. Sturdee conducted further reconnaissance of sites on Rottnest Island for barracks, workshops and other establishments required to support the coastal defence system. He recommended the area east and north of Bickley Swamp as the most suitable area for barracks and quarters (the future Kingstown Barracks).

Construction of the Rottnest Island defence facilities commenced in late 1935. Captain (later Brigadier) Frank Hussey of the No.5 Fortress Company, Royal Australian Engineers (RAE) was transferred from Sydney to supervise the work. Construction of the two 9.2 inch gun emplacements on Oliver Hill commenced in March 1936 and work was completed in December 1937. The Bickley Battery gun emplacements were constructed in the period September 1937 – April 1938. Work began in late 1936 on the Kingstown Barracks complex and continued in three phases through to completion in 1938.



Above Left: Lieutenant-General Sir J.J. Talbot-Hobbs (Photo by Fred Leist, courtesy of Australian War Memorial) / Above Right: Captain B.F. (Frank) Hussey RAE - 1927.

Warrant Officer (later Lieutenant Colonel) Ray Lucas RAE and Warrant Officer (later Captain) William Lake RAE oversaw the installation of engines and other equipment in the engine room at Oliver Hill.

The two 9.2 inch guns were installed in 1937 and 1938 by the No. 6 Heavy Battery of the Royal Australian Artillery under the supervision of Major F. Nurse and Warrant Officer Gallagher. The Oliver Hill Battery was proofed for firing on 21 November, 1938. In the same year two 6 inch guns were installed at Bickley.

When war broke out on 3 September 1939 the Rottnest batteries were ready for action but fortunately did not have to fire a shot in anger for the duration of the war.

After the war, all units at Rottnest Island were disbanded and the guns were placed in long-term storage. Kingstown barracks and surrounding buildings were mostly vacated by the military, however the barracks were partially occupied by personnel engaged in dismantling the batteries on the island, until work was completed in 1953. An artillery maintenance detachment remained on the island until 1960, when the remaining 9.2 inch ammunition was finally removed by the 44th Railway Squadron. The railway was restored at that time in order to transport the ammunition. Kingstown Barracks was used by the army for training purposes from 1955 to 1984, until the official closing ceremony on 15 December 1984. The Rottnest Island Board took ownership of the barracks buildings from July 1985 to establish an Environmental Education Centre, which continues to operate today. The Board (now "Authority") continues to maintain and develop buildings at the Kingstown settlement for various purposes, including visitor accommodation.

The Oliver Hill battery site and Kingstown Barracks are listed by the National Trust and included in the Heritage Commission National Estate and the Heritage Council of Western Australia Register of Heritage Places.

Key Components of Rottnest Island WW2 Facilities

Army Jetty

A jetty close to Bickley Point at the southern end of Thomson Bay was originally built in 1906. In 1935 it was extended by 47 feet and equipped with a heavy lift gantry. The Public Works Department of WA was responsible for the jetty works. A rail line was installed from the end of the jetty to nearby Kingstown Barracks and on to the Oliver Hill site to enable the transport of heavy equipment, supplies and personnel to key defence facility sites.



Early Stages of the Jetty upgrade, 1935.

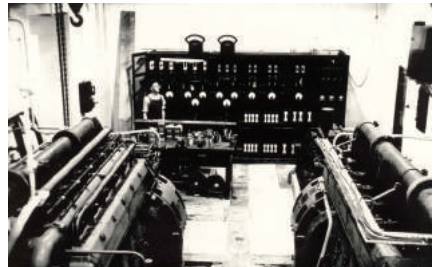
Oliver Hill Battery

In addition to the two 9.2 inch gun emplacements (H1 and H2), the above-ground infrastructure at Oliver Hill consisted of the rail head, workshop and associated store, crew shelter and associated store, and gunner's cottages. The extensive underground facilities included magazines, gun loading and machinery room ("gun room"), pump room, engine room and various personnel rooms and store rooms. Contractor F.J. Deacon began work on the site in March 1936 and completed in December 1937 at a cost of £55,344.

The H1 gun barrel installed at Oliver Hill in 1938, and still on display there, was manufactured in 1901 by Armstrongs in the UK. The barrel weighs 28 tons. It was originally supplied to the Royal Navy, to be held in reserve

for the Fleet in Hong Kong. It was transferred to the British Army for land service in 1910. The H2 gun barrel, also installed at Oliver Hill in 1938, was previously used by the British Army in the defence of Portland Harbour, in 1919.

H1 arrived at Fremantle aboard MV Wairangi in February 1937 and H2 on MV Karamia later in the same year. Each gun, its mountings, sights and sundry equipment cost £40,400 at the time.



Above Top: H2 gun emplacement under construction in 1937 | Above Bottom: The underground engine room facing electrical distribution board, c. 1938. The two 6 cylinder 180 HP Ruston Diesel engines coupled to two Laurance Scott 120 KVA electric generators provided power to operate both guns and associated equipment.

Bickley Point

Todd Brothers of Leederville built the Bickley Battery gun emplacements, roads and water services for a contract cost of £8,471. Work commenced in September 1937 and was completed in April 1938. The two 6 inch Mark

XI guns were from first World War Naval ships, HMAS Melbourne and HMAS Brisbane.

Kingstown Barracks

The Kingstown complex consists of a variety of buildings centred on the main barracks and parade ground. By 1939 the troop strength on the Island was thought to be around 4000, but by 1942 it was reduced to 2500.

Construction of the Barracks took place in three phases. In late 1936 work began on the main Barracks by contractor F.J. Deacon at a contract price of £28,669. The second phase began in 1938, with the awarding of a contract to Todd Brothers of Cleaver Street, Perth, for the building of the RAA and RAE administration offices, officer's mess, canteen and married quarters. In a third phase, also in 1938, additional married quarters, the hospital, parade ground and sundry other buildings were built. Todd Brothers again won the tender to construct the houses, at a contract price of £6,480. The hospital was built by H. Hoyle of Subiaco for £2,787. The total works in phase three were completed in 1939 at a total cost of £9,802.



Kingstown Barracks, looking from clock tower towards the north-east, c. 1938 showing the No 2 Administration Building (RAA). On the left can be seen the RAA Canteen. The Engine House for diesel railway engines is in left far background. The area in the foreground became the Parade Ground.

Kingstown-Oliver Hill Railway

The construction of roads and the 3.5 foot gauge rail line marked the start of the creation of the Rottnest Island Fortress. The rail line was particularly important, as it enabled heavy loads to be carried from the jetty to the building sites, and later carried the guns and associated equipment. The tender for construction of the rail line was let to John Dunstan and Son in November 1935 at the contract amount of £13,364. The completion date was set for March 1936, just 5 months.

The original rail line between Oliver Hill and Kingstown Barracks has been refurbished, extended to the Settlement, and is used to carry visitors to and from the gun site.



Above Top: Manual construction of the railway, including use of horse drawn scoops | Above Bottom: A working party being transported to the Oliver Hill gun Battery from the Barracks in 1937 by locomotive "Crayfish". Engineering personnel are on the locomotive; artillery personnel on the railway truck.

A Significant Achievement

The construction of infrastructure for and the installation of high precision military equipment in difficult circumstances, was a significant technical achievement. For the thousands of ex service men and women who served on the island up to and during the WW2 years the facilities have considerable social significance.

Acknowledgements

Engineering Heritage Western Australia wishes to acknowledge that it has extensively used in the preparation of this nomination and program the following sources:

Moynihan, John : All The News in a Flash, University of WA Press, 1988.

Holder, A.D. : Fremantle and Rottneest Coast Defence Batteries. A Brief History 1993.

G B Hill and Partners : Oliver Hill Conservation Assessment, November 1995.

Ralph Hoare Architect : Kingstown Barracks Conservation Plan June 2000.

Mulloway Studio and Kloeden, Paul : Rottneest Island WW2 Coastal Defence Heritage, Interpretation Concept Development Plan, February 2009.

Palassis Architects : Oliver Hill Battery Rottneest Island, Conservation Management Plan, December 2005.

Rottneest Island Authority : Oliver Hill Battery, Oliver Hill railway and Signal Ridge (Wadjemup Hill) Tourist Brochures.

Photo Archives of the National Trust of Australia, Defence Heritage Committee, and the Army Museum of Western Australia.

The assistance of the following people is also gratefully acknowledged.

Ms Harriet Wyatt, Cultural Heritage Officer, Rottneest Island Authority

Ms Patsy Vizents, Heritage Officer, Rottneest Island Authority

Mr Jim Paton, G B Hill and Associates (now GHD Pty Ltd)

Mr Robert Mitchell, Curator, Army Museum of Western Australia

Mr Ross Howarth, Archivist, Royal Military College of Australia



H2 magazine and ammunition.



Bickley Point - Hauling the Bickley F2 gun shield onto the gun position after it has been unloaded from the railway trolley. Personnel are using a timber sleigh on rollers that is being hauled up with a grab capstan (just in view on right - see inset).